

1 BILL NO. S-81-04- 42

2 SPECIAL ORDINANCE NO. S- 125-81

3
4 AN ORDINANCE approving Change Order
5 No. 13 in connection with the Water
6 Works Improvement Filtration Plant.

7 BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF
8 FORT WAYNE, INDIANA:

9 SECTION 1. That Change Order No. 13 to Hagerman
10 Construction Corporation/Shambaugh & Sons, Inc., joint bidders,
11 in connection with the Water Works Improvement Filtration Plant,
12 for:

13 the addition of piping valves and
14 instrumentation to better control
15 the manner in which sludge is pumped
16 to the sludge lagoons,

17 in the amount of \$55,226.00, as set out in the specifications
18 which are on file in the Office of the Board of Public Works,
19 and are by reference incorporated herein and made a part hereof,
20 be and the same is in all things ratified, confirmed and ap-
21 proved.

22 SECTION 2. That this Ordinance shall be effective from
23 and after its passage and approval by the Mayor.

24 
COUNCILMAN

25 APPROVED AS TO FORM AND
26 LEGALITY APRIL 24, 1981.

27 
28 BRUCE O. BOXBERGER, CITY ATTORNEY
29
30
31
32

Read the first time in full and on motion by Burns, seconded by Talarico, and duly adopted, read the second time by title and referred to the Committee City Clerk (and the City Plan Commission for recommendation) and Public Hearing to be held after due legal notice, at the Council Chambers, City-County Building, Fort Wayne, Indiana, on _____, 19____, the _____ day of _____, at _____ o'clock _____ M., E.S.T.

DATE: 4-28-81

Charles W. Westerman
CHARLES W. WESTERMAN
CITY CLERK

Read the third time in full and on motion by Burns, seconded by Talarico, and duly adopted, placed on its passage. PASSED (Lost) by the following vote:

	AYES	NAYS	ABSTAINED	ABSENT	TO-WIT:
TOTAL VOTES	<u>9</u>	<u>0</u>			
BURNS	<u>X</u>				
EISBART	<u>X</u>				
GIAQUINTA	<u>X</u>				
NUCKOLS	<u>X</u>				
SCHMIDT, D.	<u>X</u>				
SCHMIDT, V.	<u>X</u>				
SCHOMBURG	<u>X</u>				
STIER	<u>X</u>				
TALARICO	<u>X</u>				

DATE: 5-12-81

Charles W. Westerman
CHARLES W. WESTERMAN - CITY CLERK

Passed and adopted by the Common Council of the City of Fort Wayne, Indiana, as (ZONING MAP) (GENERAL) (ANNEXATION) (SPECIAL) (APPROPRIATION) ORDINANCE (RESOLUTION) No. A-125-81 on the 12th day of May, 1981.

ATTEST:

(SEAL)

Charles W. Westerman
CHARLES W. WESTERMAN - CITY CLERK

John Nuckols
PRESIDING OFFICER

Presented by me to the Mayor of the City of Fort Wayne, Indiana, on the 13th day of May, 1981, at the hour of 11:30 o'clock A M., E.S.T.

Charles W. Westerman
CHARLES W. WESTERMAN - CITY CLERK

Approved and signed by me this 22nd day of May 1981, at the hour of 3 o'clock P M., E.S.T.

Winfield C. Moses, Jr.
WINFIELD C. MOSES, JR.
MAYOR

BILL NO. S-81-04-42

REPORT OF THE COMMITTEE ON CITY UTILITIES

WE, YOUR COMMITTEE ON City Utilities TO WHOM WAS REFERRED AN
ORDINANCE approving Change Order No. 13 in connection with the
Water Works Improvement Filtration Plant

HAVE HAD SAID ORDINANCE UNDER CONSIDERATION AND BEG LEAVE TO REPORT
BACK TO THE COMMON COUNCIL THAT SAID ORDINANCE 88 PASS.

PAUL M. BURNS, CHAIRMAN

VIVIAN G. SCHMIDT, VICE CHAIRMAN

BEN A. EISBART

SAMUEL J. TALARICO

ROY J. SCHOMBURG

Tiprian J. Schmidt
Samuel J. Talarico
Roy J. Schomburg
CONCURRED IN

5-12-81
DATE 5-12-81 CHARLES W. WERTERMAN, CITY CLERK



ACTIVE PARTNERS

A.M. HOLLAND B.H. HOLLAND, JR. R.W. FORCE
M.P. VAN DYKE S.C. WARTHEE R.J. SMIT
R.W. BUCHTAL J.P. BATES R.C. YOUNG

RETIRED PARTNERS

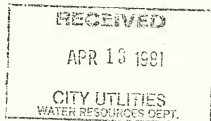
R.L. MCNAMEE W.S. HERRERT J.C. SEELEY

McNamee, Porter and Seeley

3131 SOUTH STATE STREET · ANN ARBOR, MICHIGAN 48104 · (313) 665-6000

Consulting Engineers

April 10, 1981



Mr. Phillip R. Boller, P.E.
Director of Water Resources
City-County Building
One Main Street
Fort Wayne, IN 46802

RE: City of Fort Wayne, IN
Water Works Improvements
Filtration Plant Additions
Contract 77-W-2

Dear Mr. Boller:

This is in response to your request for documentation and background information concerning change orders issued to the above subject.

We are enclosing change order No. 13, which includes revisions to the lime sludge pumping system, Drawings and Specifications for this work were issued with Bulletin 13, dated March 24, 1981. The Bulletin was subsequently revised by our letter to the contractor dated March 27, and April 4, 1981.

The proposed changes are intended to eliminate the much discussed and severe water hammer occurring along the route of the sludge pumping main. Specifically, the changes include the addition of piping, valves and instrumentation to better control the manner in which sludge is pumped to the sludge lagoons. New pump discharge valves are provided, which will open and close slowly to control surges in the pumping main. Additional flexibility for normal sludge handling has also been provided.

The water hammer problem occurs over a several week period in the spring and fall of the year when existing Plant No. 1 is cleaned.

McNamee, Porter and Seeley

Mr. Phillip R. Boller, P.E.
Contract 77-W-2
April 10, 1981

PAGE TWO

We respectfully request "Prior Approval" of this change order, so that the new control valve and instrumentation for the existing sludge pump can be installed prior to the next scheduled cleaning process. We have already directed the contractor to order this valve, so it will be on site as soon as possible.

We are not at this time recommending to proceed with changes at Dearborn and Edgewater Streets.

The amount of Change Order No. 13 is \$55,226, which results in a revised contract amount of \$14,941,434.65 or less than 1.5 percent of the original contract amount.

Very truly yours,

MCNAMEE, PORTER AND SEELEY

BY


John P. Oyer

JPO:ml

cc: Glen Patrick
Don Foland
Chuck Koons
A.D. Katz

Memorandum

Council 5/12/81
To Board of Public Works Date 4/13/81
From Philip R. Boller, Director of Water Resources, City Utilities
Subject Prior Approval - Change Order No. 13, Contract 77-W-2
Control Valve and Instrumentation for Sludge Pumping

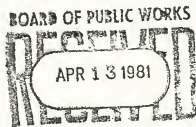
COPIES TO:
Glen Patrick

Attached please find five copies of Change Order No. 13 for the above project. I recommend Board of Public Work's approval and ask that the Board please expedite this Change Order by asking Prior Approval from Common Council at their next scheduled meeting April 14, 1981.

We respectfully request "Prior Approval" of this Change Order No. 13 in order that the new control valve and its instrumentation for pumping sludge can be installed prior to the next scheduled cleaning process at the Water Filtration Plant. Please return all copies to my office for distribution.

P.R. Boller

Prior approval written



[Signature]
Ronald Anderson, Chair
Betty R. Collins

APPROVED
Board of Public Works

70-164-30

4/15/81

70-164-30 4/15/81
McNAMEE, PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MI

CHANGE ORDER

DISTRIBUTION:
City - 2

Contractor - 3 (1 Info)
MP&S - 1
Resident - 2
Glen Patrick - 1 (Info)
File - 1

OWNER: City of Fort Wayne, IN

CONTRACTOR: Hagerman/Shambaugh Joint Bidders
510 W. Washington Blvd.
Fort Wayne, IN 46853

TITLE: Water Works Improvements
Filtration Plant Additions

CONTRACT NO: 77-W-2

EPA NO. N/A

CHANGE ORDER NO: 13

DATE: April 10, 1981

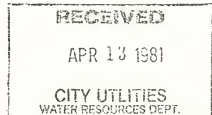
To the Contractor named above:

Under the above contract and upon approval of the Owner we hereby direct you to furnish the necessary additional labor, material and equipment to:

Include items b,c,d,f. (Including electrical) of Bulletin # 13, including McNamee, Porter and Seeley's letters of 3/27/81 and 4/6/81 for the proposed changes to sludge handling.

b. Add 16,969.00
c. Add 9,016.00
d. Add 12,627.00
f. Add 8,664.00
Electrical Add 7,950.00

\$ 55,226.00 Net change to contract



CURRENT CONTRACT AMOUNT \$14,886,208.65
THIS CHANGE ORDER, ADD 55,226.00
REVISED CONTRACT AMOUNT \$14,941,434.65

McNAMEE, PORTER AND SEELEY

BY

John M. Holland

Current

12th bond

leave for ex
of WFP

Fort Wayne, IN

Contract 77-W-2

CHANGE ORDER NO. 13

ACCEPTED

DATE

4/13/81

CONTRACTOR: Hagerman/Shambaugh, Joint Bidders

BY:

Paul F. Hagerman

RECOMMENDED:

DATE

4/13/81

DIRECTOR OF WATER

RESOURCES DIVISION:

Bob Balke

APPROVED &
ADOPTED

DATE

BOARD OF PUBLIC WORKS

BY

Robert Anderson

(CHAIRMAN)

Robert Anderson

ATTEST:

Sandra E. Kennedy
Clerk Board of Public Works

Hagerman Construction Corporation

GENERAL CONTRACTORS



Office: 510 West Washington Blvd. Phone 219-424-1470

P. O. Box 10690

April 8, 1981

FORT WAYNE, INDIANA 46853

McNamee Porter & Seeley
3131 South State Street
Ann Arbor, Michigan 48104

Re: Water Filtration Plant
Fort Wayne, Indiana
Change Bulletin #13

Gentlemen:

This letter is supplemental to a proposal from Shambaugh this date and will show totals only from Shambaugh with added work items from us.

Item a - Deleted		
Item b - Shambaugh	\$ 16,373.00	
Painting	<u>596.00</u>	
Total		\$ 16,969.00
Item c - Shambaugh		\$ 9,016.00
Item d - Shambaugh		\$ 12,627.00
Item e - Deleted		
Item f - Shambaugh		\$ 8,664.00
Item g - Shambaugh		\$ 5,745.00
Electrical work for above items	\$7,225.00	
Contractor's Markup	<u>725.00</u>	
		\$ 7,950.00

Please note qualifications of proposal as shown in Shambaugh's letter.

Very truly yours,

HAGERMAN CONSTRUCTION CORPORATION

By

Ralph E. Turner
Ralph E. Turner

RET:sw

Shambaugh & Son INC.

MECHANICAL • ELECTRICAL • FIRE PROTECTION • WASTE WATER

137 Chambeau Road • PO Box 1287 • Fort Wayne, Indiana 46801 • Phone (219) 484-0741

April 8, 1981: per the attached copy of the letter from the City of Ft. Wayne, Indiana, dated March 24, 1981, regarding the proposed changes to the City of Ft. Wayne Water Works Improvements, Filtration Plant Additions, Shambaugh Job #6272.

Hagerman Construction Corporation
510 W. Washington Blvd.
P. O. Box 10690
Fort Wayne, IN 46853

Attention: Mr. Ralph Turner

Reference: City of Ft. Wayne, Indiana
Water Works Improvements, Filtration Plant Additions
Shambaugh Job #6272
Change Bull. #13 dated March 24, 1981

Gentlemen:

1. (Item a) This item has been deleted by John Oyer.

2. (Item b) Furnish and install 6" D.I. pipe and four (4) 6" CWO-plug valves with required chain.

Notes: Pipe to be run on wall brackets (prime painted) with pipe centerline 12" off wall. The wall and floor core for the 6" D.I. pipe will be sealed with link seal. (Field painting to be by others.) Pipe layout to be by Shambaugh as discussed with John Oyer.

M	L	M/U	Total
7,599	6,646	2,128	16,373

3. (Item c) Note in lieu of fiberglass slide gates we are quoting furnishing a Waterman type C-20 sluice gate (nut operated) center line of gate to top of frame 5'-6". We also will furnish five (5) fig. 1108 M & H floor boxes to be grouted in 10" round holes cored in floor. Please see enclosed details. The gates are to be operated by a T-wrench.

M	Sub	L	M/U	Total
3,630	1,500	2,714	1,172	9,016

4. (Item d) This item includes the installation of two (2) 8" pneumatic cylinder operated Dezurik V-ball valves. It also includes running a 3/8" air line with air regulator and filter to operate these valves. V-ball valve at Pump "C" is to have a Bailey Positioner as per enclosed copy of John Oyer's letter dated March 27, 1981. It also includes necessary piping to install these valves.

M	L	M/U	Total
9,351	1,635	1,641	12,627

5. (Item e) This item is deleted as valves were changed to pneumatic operated.
6. (Item f) "Instrumentation" This includes furnishing of sonic level element, instrument panel for sludge pump "C" and two (2) NEMA 4 pressure switches and support for sonic detector.

<u>M</u>	<u>L</u>	<u>M/U</u>	<u>Total</u>
6,849	689	1,126	8,664

Note: Mounting of level detector instrument panel and all field wiring is by others.

7. (Item g) This includes removal of upper portion of manhole and piping per sketch M.H. #1 dated April 6, 1981. We intend to leave in place bottom section of manhole, install piping and then backfill with sand to grade.

<u>M</u>	<u>L</u>	<u>M/U</u>	<u>Total</u>
2,209	2,790	746	5,745

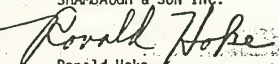
Please note we feel this change could be done without removing manhole at a reduced cost.

"Contingencies of this quotation are as follows":

1. Extension of time requested (15 weeks). This is based on receiving all required materials in 9 weeks and completing work in 6 weeks.
2. Shop drawings -- All shop drawing approvals are waived. However, four (4) copies of O & M manuals will be provided for valves, instrument panel, pressure switches and sluice gates.
3. We require a firm and written notice to proceed.
4. Retainage -- Subject to release of retainage monies on original contract thru Bull. #11 to a minimum of 2%.
5. Item G -- "Manhole revisions" contingency:
 - a. We don't feel 23' of pipe removal is required and are quoting per attached sketch M.H. #1 dated April 6, 1981.
 - b. No costs are included for revamping or relocating any existing utilities as none are shown.
6. Acceptance -- This quote is void if not accepted by June 8, 1981.

Very truly yours,

SHAMBAUGH & SON INC.


Ronald Hoke
Project Manager

cc: Duane Cryer/Shambaugh & Son/Job Site
James F. Harvey/Shambaugh & Son/File

CANAL GATE

The WATERMAN MODEL C-20 CANAL GATE is made to fit the needs for a moderate pressure cut-off where both moderate seating and low unseating pressures are encountered.

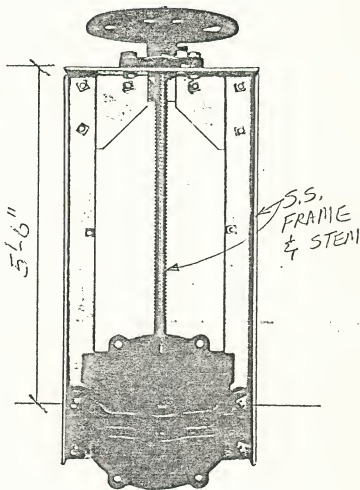
Typical uses include installation in Treatment Plants, Flood Control Projects, Irrigation Canals and Diversion Stands.

Flatback gates for headwall mounting or spigotback models for attaching to corrugated metal pipe are available.

The cover, frame ring, adjustable wedges, arch, and hand-wheel are made of cast iron. The lift-nut is cast bronze and utilizes rugged acme type threads. The steel stem is secured to the cover by an easily removeable pin to permit removing for maintenance. This feature also allows the user to stock standard frame length gates and provide field installation of rising stem extensions, where this is desirable.

Standard accessories, galvanizing, and bronze seats and stems are available.

See price list for sizes available: Write for custom requirements.



Model C-20s Flange Back

Model C-20s Spigot Back

- 20-foot Seating Head
- 10-foot Unseating Head
- Cast Iron Seats, standard
- Bronze Seats, optional

- Adjustable Side Wedges
- Rugged Cast Bronze Lift Nut
- Rising Stems
- Stainless Steel Frames and Stem, optional

RED

WATERMAN® TOP

WATER CONTROL GATES

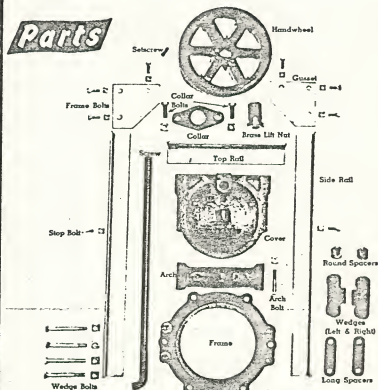
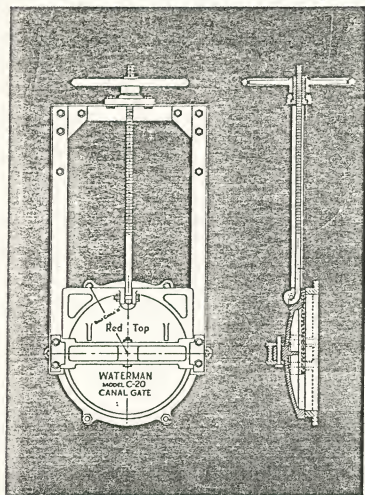
VALVES and EQUIPMENT

Waterman Industries, Inc., Exeter, California

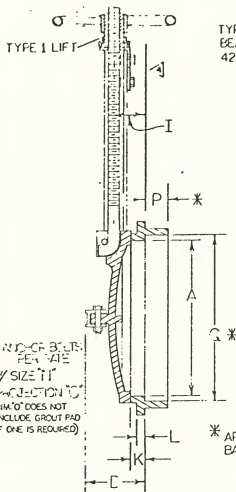
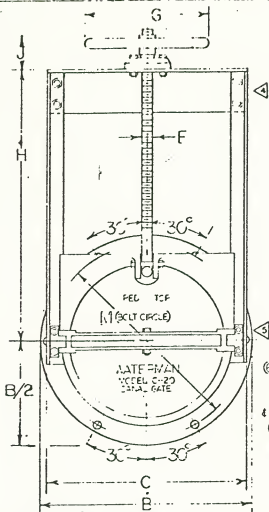
Lubbock, Texas - Garden City, Kansas

WATERMAN *model* C-20

CANAL GATE



To order parts, give quantity, valve size, and name of parts as shown above.



④ NO. OF BALLS PER GATE
 1/2 SIZE "I"
 (DIM "O" DOES NOT INCLUDE GROUT PAD IF ONE IS REQUIRED)

TYPE 2 LUBRICATED BALL BEARING LIFT USED ON 42" GATE

* APPLIES TO SPIGOT BACK GATE ONLY

SIZE	8	10	12	14	15	16	18	20	21	24	30	36	42
A	8	10	12	14	15	16	18	20	21	24	30	36	42
B	13 1/2	16	19	21	22 1/2	23 1/2	25	27 1/2	28 1/2	32	38 1/2	46	53
C	12 3/4	14 1/2	17 1/4	19 3/8	20 1/2	20 3/4	23 1/4	25 1/4	26 1/4	30	36 3/4	42	49 1/2
D	5	5 1/2	5 7/8	6	6 3/8	6 3/4	7 1/4	7 7/8	8 1/8	9	8 3/8	12	13 1/2
E	7/8	7/8	7/8	7/8	7/8	7/8	1 1/8	1 1/2	1 1/8	1 1/8	1 1/2	1 1/2	1 1/2
F													
G	12	12	12	12	12	12	15	15	15	15	18	18	24
H	24	24	30	32	32	32	36	42	42	48	60	70	84
I	2 1/2	2 3/8	2 7/8	3	3	3 1/4	3 1/2	3 3/4	3 3/8	3 3/4	4 1/2	4 1/2	5 3/8
J	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	4	4	4	4	4 1/2	4 1/2	6
K	1	1 1/8	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2	2 1/4	2 1/4	3
L	3 3/8	3 3/8	3 9/16	3 9/16	3 9/16	3 9/16	3 9/16	3 9/16	3 9/16	3 9/16	3 9/16	3 9/16	3 9/16
M	11 1/4	14	16 1/2	18 1/2	20	21	23	25 1/2	26 3/4	30	37 1/2	43 1/2	49 1/2
N	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
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P	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	2 1/4	2 1/4	2 3/8
Q	9	11	13	15	16	17	19	21	22	25	31	37	43

NOTE: FOR PRELIMINARY DESIGN PURPOSES ONLY. DO NOT USE FOR INSTALLATION UNLESS PART OF A CERTIFIED AND APPROVED SUBMITTAL.

REV. A	DATE 1/24/75
REV. A	DATE 12/17/77
REV. A	DATE 5/23/73
REV. A	DATE 2/14/72
REV. A	DATE 2/2/70
REV. A	DATE 2/4/70

WATERMAN INDUSTRIES, INC.

DATE: 10/18/69

WATERMAN MODEL C-20
 CANAL GATE

SCALE: NONE

DR. BY: SMS

DR. NO. A-6988

"THIS DRAWING, INCLUDING ALL MODEL AND PAT-
ENTED OR PATENTABLE SUBJECT MATTER, CREDESSES
DIVISION, UNLESS INDICATED OTHERWISE, IS THE
PROPERTY OF DRESSER INDUSTRIES, INC. AND IS TO BE
USED ONLY FOR THE PURPOSES SPECIFIED HEREIN.
NO PART OF THIS DRAWING IS TO BE REPRODUCED OR
TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC
OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING,
OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM,
WITHOUT PERMISSION IN WRITING FROM DRESSER INDUSTRIES, INC.
PERMISSION IS GRANTED BY THE OWNER, AND THAT
IT SHALL BE RETURNED ON DEMAND."

DATE 5 BY APP

REVISIONS

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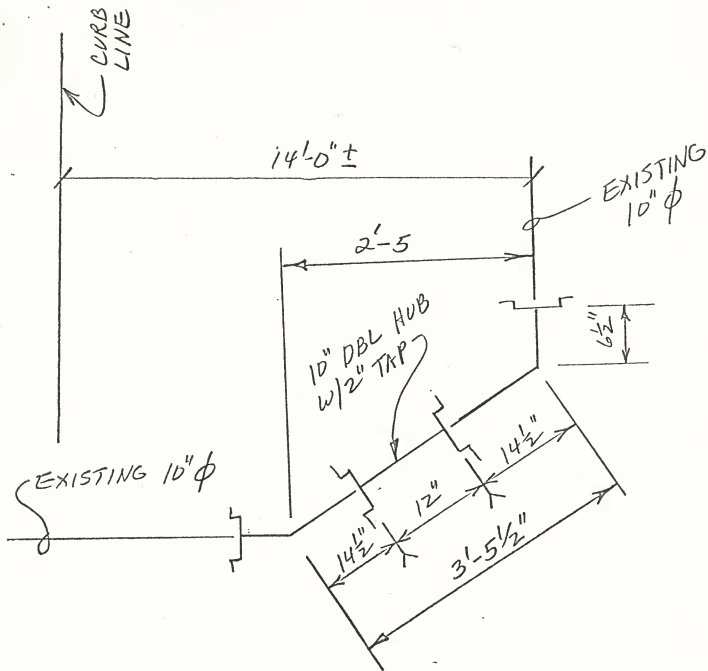
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R.L.H. 4/6/81
 SKETCH M.H. #1
 BULL #13, ITEM G

ACK

MCNAMEE, PORTER AND SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

TO: Hagerman/Shambaugh, Joint Bidders
510 West Washington Blvd.
Fort Wayne, IN 46853

DATE: March 24, 1981

ATTN: Ralph Turner; Ronald Hoke

PROJECT: Fort Wayne, IN
Water Works Improvements
Filtration Plant Additions
Contract 77-W-2

Add — BULLETIN NO. 13
Addendum 3/27/81

INTENT: This is not a change order. This is a request to the Contractor for a detailed price breakdown of proposed changes in the work.

PROPOSED CHANGES:

SLUDGE HANDLING REVISIONS

Proposed changes to sludge handling are as follows:

- a) Provide cross connection between 4 and 6 inch sludge lines in Control Building Gallery, Plant No. 2 as detailed on Drawing 8-S-4 of previous Contract 66-W-8. Drawing 8-S-4 is being reissued with this Bulletin No. 13. Provide valves with operators and accessories as described in Supplemental Valve Schedule SVS-1 issued with this Bulletin No. 13.
- b) Provide 6 inch sludge lines from existing piping in North Gallery, Plant No. 2 to sludge sump and sludge piping in North Gallery, Plant No. 3 as detailed on the following Drawings:
8-S-3 of previous Contract 66-W-8
M-6, 15, 19 of Contract 77-W-2
Provide valves with operators and accessories as described in SVS-1.
- c) Core drill openings in Primary and Secondary sludge sumps and provide fabricated slide gates (fiberglass) as shown on Drawing M-15, 19 and 22 and as described in Supplemental Gate Schedule SGS-1.
- d) Provide V-port ball valve in North Gallery, Plant No. 2 as detailed on Drawings 8-S-3 of previous contract 66-W-8 and remove swing check valve C-2-1 and provide V-port ball valve in North Gallery, Plant No. 3 as detailed on Drawing M-19 of Contract 77-W-2. Provide operators and accessories as described in SVS-1.

V port ball valves shall be ANSI Class 150, full bore carbon steel body, flanged ends, TFE multiple ring packing, ceramic filled TFE bearings, 304 SS stem and ball. Valve seat shall be standard construction. Valves shall be DeZurik, V-port ball valve; or equal. Actuators and accessories shall be per SVS-1.

Hydraulic cylinders and accessories shall be as specified in HYDRAULIC OPERATORS Specification for hydraulic cylinders and valve control issued with this Bulletin No. 13. Motor operators and accessories shall be as specified in Section 19 of the Contract Specifications except as noted below.

- e) Provide plumbing for hydraulic cylinder as shown on M-48.
- f) Provide electrical and instrumentation as shown on Drawings E-12, E-29, E-53 and SI-3 and as herein described.

Motor operator for throttling ball valve VP-1-1 shall conform to that as shown on Supplemental Valve Schedule SVS-1 and conform to that already specified under Section 19, Valves and Gates for "Electric Motor Throttling Service". The following additional requirements apply:

The operator shall accept a 4-20 mA d-c instrumentation signal that represents the desired valve position. This signal valve shall be compared with the valve position feedback potentiometer. The operator shall then cause the valve to move in such a way as to bring the two valves into agreement.

Operator shall be Limitorque/Modutronic or equal.

Section 45, Electrical.

Revise control circuits for Sludge Pump No. 11 to that shown on reissued Drawing E-12. Revisions necessary for pump C are shown on Supplemental Drawing SI-3. Revisions will control the pump discharge V-ball control valve.

Install additional control wiring to pressure switches, solenoids, limit switches and controls as required for proper operation and as shown on reissued Drawings E-29 and E-53.

Install new pump control panel (furnished under Section 46, Instrumentation) for Pump C. Install ultrasonic level sensor and all associated wiring per Instrumentation Installation Details.

Section 46, Instrumentation.

Refer to Supplemental Drawing SI-3 issued herewith. Furnish complete a control panel for Pump C to function as shown. Level controller LIC-43 may be face mounted if provided with a set-point locking means.

Provide two (2) NEMA-4 pressure switches, PS-43 and PS-46, for pump and valve control. Switch range to be 0-200 psi with overrange to 250 psi. Provide diaphragm seals.

- g) Revise sludge pumping main at Dearborn and Edgewater Streets as shown on Supplemental Drawing SM-4 issued with this Bulletin. This item also includes surface restoration.

BULLETIN NO: 13

CONTRACT NO: 77-W-2.

DATE: March 24, 1981

REASON FOR CHANGES:

Proposed changes provide means to direct all sludge generated within the water plant to the new sludge sump in Plant No. 3 and to provide for additional flexibility in transporting sludge to the sludge lagoons. Proposed changes will decrease significantly the frequency of pump start/stop cycles of large sludge pumps which is believed to be the cause of water hammer in the sludge pumping main. The changes also include new valves on the large sludge pumps which can be adjusted to open and close slowly thereby further reducing the potential for water hammer in the sludge pumping main. The changes also include replacing 90 degree bend at Dearborn and Edgewater with 2 - 45 degree bends to provide a smoother flow pattern at the location where water hammer has been most noticeable.

Will the work covered by this Bulletin require an extension of the contract completion date? _____
How many calendar days? _____

It is requested that the spaces provided for the change in contract amount, signature and date be filled in and 2 copies returned to this office. A quotation, showing the Bulletin Number and the detailed cost setting forth the breakdown of labor, material and markup, is to be attached to each copy of the Bulletin, showing the addition, credit or no charge for each item.

MCNAMEE, PORTER AND SEELEY

BY A. D. Kelt

Change in Contract Amount _____

Net Contract Change _____

\$(_____)

BY _____

DATE _____

Enclosures: Revised Drawings 8-S-3, 8-S-4 of previous Contract 66-W-8
Revised Drawings M-6, 15, 19, 22, 48, E-12, 29 and 53
Supplemental Drawings SM-4 and SI-3
Hydraulic Operators Specification
Supplemental Valve Schedule SVS-1
Supplemental Gate Schedule SGS-1

SUPPLEMENTAL GATE SCHEDULE (SGS-1)

Mark	Location	Service	Size	Quantity	Type	Head		Operator	Accessories	Remarks
						Seating	Unseating			
FABRICATED SLIDE GATES										
FG-3-1 FG-3-2 FG-3-3	Plant No. 3 North Gallery	Sludge	12" dia.	3				ES, 7'-0" VB, 12"		Frame mount on face of concrete walls
FG-4-1 & FG-4-2	Plant No. 3 Control Bldg. Gallery	Sludge	12" dia.	2				ES, 4'-0" VB, 12"		Frame mount on face of concrete

HYDRAULIC OPERATORS (HW)

Cylinder Operators. The hydraulic cylinders shall be of rolled steel or cast iron with a liner of 1/8-inch rolled red brass or stainless steel or seamless red brass or stainless steel tubing. The piston rods shall be of bronze or stainless steel with a hard nickel overlay not less than 0.007 inch in thickness. The stuffing boxes shall be large, easily accessible and provided with bronze packing glands and followers. The cylinder shall be designed to operate the valve with full hydraulic unbalance across the valve equal to the maximum working pressure and a cylinder operating pressure of not less than the maximum working pressure. It shall also be designed to operate the valve with a minimum pressure of 40 psi when given a 40 lb. hydraulic unbalance across the valve. Cylinders shall be vertical, rigidly mounted on the operating mechanism. The piston rod shall be rigidly connected to the mechanism cross head.

Speed control valves shall be provided in the hydraulic system to the cylinder to permit adjustment of the speed of valve operation.

The valve manufacturer shall provide two suitable gate valves per valve operator cylinder, to be installed under plumbing, for isolating each cylinder from the system.

All cylinder actuated valves shall be provided with two (2) limit switches to actuate indicating lights to indicate "Valve Open" and "Valve Closed". The "Valve Closed" limit switch shall also actuate the momentary contact limit switch. Each limit switch shall be provided with two (2) normally closed and two (2) normally open contacts. All limit switches shall be externally mounted on the mechanism cover plate and have an adjustable feature on the actuator arm.

Valve Control. The 4-way control valve for controlling the flow of fluid to the cylinder on the pump stop and check valve shall be of the spool type, actuated by a pilot pressure applied to a differential piston. The pilot valve shall be a 3-way solenoid operated valve. Handwheels shall be provided for directly positioning the spool of the 4-way control valve in both the "open" and "closed" pump check valve positions. There shall also be supplied a 4-way manually positioned valve that either directs pilot pressure to open the pump check valve, close the pump check valve, or put the pump check valve under the control of the solenoid pilot valve. (Automatic Mode) All material of construction of the pump check valve control components shall be of non-corrosive materials suitable for cold water service. The control valve will be so designed that when current is applied to the 3-way solenoid valve the 4-way control valve will position to "open" the pump check valve.

Individual flow control valves will be provided in the hydraulic lines connecting the two parts on the 4-way control valve to the actuating cylinder of the pump check valve. These flow control valves shall provide independent timing for the "opening" and "closing" strokes of the pump check valve. Timing shall be adjustable within the range of 30 to 300 seconds.

A normally open 2-way solenoid valve shall be provided in a line that by-passes the flow control valve that regulates the pump check valve closing time. This bypass line will bypass fluid whenever the 2-way solenoid valve is de-energized to give a faster rate of closing on power failure. The by pass line will be furnished with a regulating valve to adjust the resulting closing time of the pump check valve during "fast closure" from 20 to 100 seconds.

Power water shall be piped to the pilot valve assembly from both inlet and outlet of the valve body by the valve manufacturer. All piping and fittings shall be of brass or copper. A connection shall be provided for auxiliary power water from the station system.

Valve Accessories. One complete set of wrenches, spanners and other tools necessary for the adjustment and dismantling of the equipment shall be furnished. Standard open end and pipe wrenches need not be included among these tools, but socket wrenches and offset wrenches which can be used to better advantage than standard open wrenches, shall be included among the tools to be furnished with the equipment.

All wrenches and spanners shall be case-hardened steel forgings and shall have a bright finish with working faces dressed to fit nuts.

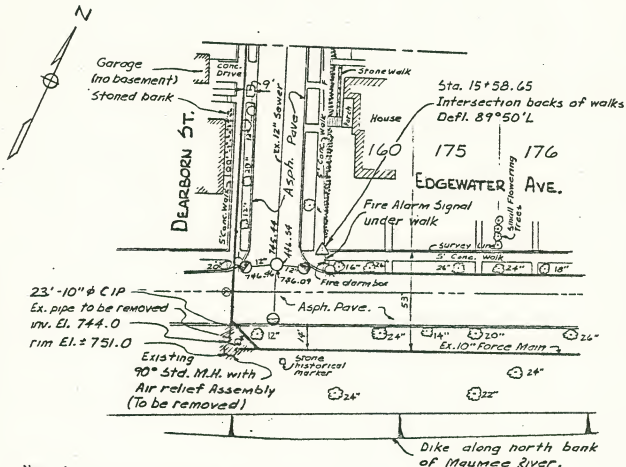
The valve shall be shipped as fully assembled as is practicable. The exposed flanges and mounting pads shall be protected by wooden pieces bolted thereto.

The shipping crates shall be provided with all necessary skids and lifting devices for crane slings.

Devices not attached to the valve during shipment shall be packed in boxes and properly labeled for assembly. All such equipment shall be shipped machined and fitted. No machining of parts in assembly shall be required.

SUPPLEMENTAL VALVE SCHEDULE (SVS-1)

Mark	Location	Service	Size Inches	Quantity	Joint	Operator	Accessories	Remarks
PLUG VALVES								
D-24-1	Plant No. 2 North Gallery	Sludge	6	1	F	CW, 5'-2"		
D-25-1	North Gallery	Drainage	6	1	F	CW, 10'-5"		
D-26-1	Plant No. 2 Control Bldg. Gallery	Sludge	4	1	F	H		
D-27-1	Plant No. 2 Control Bldg. Gallery	Sludge	4	1	F	H		
D-28-1	Plant No. 3 North Gallery	Sludge	6	1	F	CW, 7'-6"		
D-29-1	Plant No. 3 North Gallery	Sludge	6	1	F	CW, 7'-6"		
V-PORT BALL VALVES								
VP-1-1	Plant No. 2 North Gallery	Sludge	8	1	F	M	LS	Th, 115-1-60 120 sec.
VP-2-1	Plant No. 3 North Gallery	Sludge	8	1	F	HW		



NOTE:

Contractor is to remove existing 90° standard M.H. and air relief assembly, cut into existing 10" force main and install new 45° bend, 23' (1')-10" CIP, 2" curb stop, 2" street washer and 45° bend. Furnish pipe restraint as specified under section 18. Street washer to be Clow F-4717, or equal. Provide valve box at curb stop. Restore surface to match existing conditions.

Ex. Force Main is approximately 7' deep.

Issued with Bulletin No. 13

McNAMEE, PORTER AND SEELEY CONSULTING ENGINEERS ANN ARBOR, MICHIGAN		FORT WAYNE, INDIANA WATER WORKS IMPROVEMENTS FILTRATION PLANT ADDITIONS		CONTRACT 77-W-2
SCALE 1" = 50'	DATE 3-24-81	REVISIONS TO SLUDGE FORCE MAIN DEARBORN AT EDGEWATER		SHEET SM-4
DRAWN RJH	CHECKED JPO			OF



ACTIVE PARTNERS

J. M. HOLLAND D. H. HOLLAND, JR. A. W. FORCE
R. B. VAN DYKE S. C. WARTHEISE R. E. SMIT
R. W. BUCHHEIT R. F. BATTEN R. C. YOUNG

RETIREED PARTNERS

R. L. MCNAMEE W. B. PERBERT J. C. SEELEY

ADK ✓
for Bulletin File

McNamee, Porter and Seeley

3131 SOUTH STATE STREET · ANN ARBOR, MICHIGAN 48104 · (313) 665-6000

Consulting Engineers

March 27, 1981

Hagerman/Shambaugh, Joint Bidders
510 W. Washington Blvd., P.O. Box 10690
Fort Wayne, Indiana 46853

Attn: Ronald Hoke

Re: City of Fort Wayne, Indiana
Water Works Improvements
Filtration Plant Additions
Contract 77-W-2

Gentlemen:

This is to confirm our telephone conversation this date concerning Bulletin No. 13.

Specifications for valve VP-1-1 are changed from an electrically operated valve to a pneumatically positioned cylinder operated valve. The instrumentation and control for the pump remains as shown on the bulletin drawings.

Proceed with ordering one 8-inch V-port ball valve, Dezurik Figure No. 550 F4L, MWG 5 gear operator, C-8 cylinder, P-23 positioner with 4-20ma input.

Use one of the filter rate flow controllers and modify it for use as "LIC-43" as shown on SI-3. Modification consists of executing Bristol's "Y047" field revision procedure. Order a replacement controller, single case instrument housing umbilical a 0-8 scale and all necessary hardware for the permanent installation. Fabricate the level sensing system for Pump C by using the Endress and Hauser controls and accessories supplied for one of the new sludge pumps. Provide a new larger,

McNamee, Porter and Seeley

Hagerman/Shambaugh, Joint Bidders

Page Two

March 27, 1981

NEMA-4 box to house the pump controls and level controller as shown on drawing SI-3. Order necessary components to replace the controls being used for Pump C.

Very truly yours,

McNAMEE, PORTER AND SEELEY

BY


John P. Oyer

JPO:dr

cc: Philip Boller
Glen Patrick
Don Foland
Chuck Koons
File



ACTIVE PARTNERS

A.M. HOLLAND B.M. HOLLAND R.W. FORCE
W.B. HARTER S.C. HARTER P. LEWIS
R.H. SACHS P.F. BAKER R.C. THOMAS

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A.L. PHAMME R.L. HENREFF J.C. KIDLEY

McNamee, Porter and Seeley

3131 SOUTH STATE STREET · ANN ARBOR, MICHIGAN 48104 · (313) 665-6000

Consulting Engineers

April 6, 1981

Hagerman/Shambaugh Joint Bidders
510 W. Washington Blvd.
P.O. Box 10690
Fort Wayne, Indiana 46801

Attn: Ronald Hoke

Re: City of Fort Wayne, Indiana
Water Works Improvements
Filtration Plant Additions
Contract 77-S-2

Gentlemen:

This is to confirm our discussions on April 2, 1981 concerning Bulletin 13, issued March 24, 1981.

Work described in item a) should be deleted. Cross connection capabilities already exist to get all sludge from Plant No. 1 and secondary sludge from Plant No. 2 in the 6-inch sludge line.

Light duty sluice gates are acceptable for use in the sludge sumps. Frames and stem to be stainless steel.

Valve VP-2-1 will be a v-port ball valve with pneumatic cylinder. This confirms that we directed you to proceed with ordering this valve with designation as follows: DeZurik 0800, Figure 551 F4T, MWG 5 gear operator with C-8 cylinder and with TMO manual override. A 4 way and a 2 way solenoid, limit switches and speed control valves will have to be field mounted. We understand DeZurik will provide schematic drawings for installation of these items. We would prefer Versa or Numatrol solenoids over the ASCO valves we discussed on Thursday.

The new sludge line in the primary sludge handling area of Plant No. 3 should be connected to the 6-inch waste primary sludge line at El. 760.75 rather than 6 inch waste secondary sludge line at El. 765.00.

Very truly yours,

McNAMEE, PORTER AND SEELEY

BY

John P. Oyer

cc: Chuck Koons, A.D. Katz

Admn. Appr. _____

DIGEST SHEET

81-04-42

TITLE OF ORDINANCE Water Pollution Control Change Order #13, Contract 77-w-

DEPARTMENT REQUESTING ORDINANCE Board of Public Works

SYNOPSIS OF ORDINANCE Water Pollution Control Change Order #13,
Contract 77-W-2 for the Water Works Imp. Filtration Plant. The propos
changes-are intended to eliminate the much discussed and severe
water hammer occurring along the route of the sludge pumping main. To
better control the manner in which sludge is pumped to the sludge lagoors

EFFECT OF PASSAGE The addition of piping valves and instrumentation to bette
control the manner in which sludge is pumped to the sludge lagoons.

EFFECT OF NON-PASSAGE THE ABOVE DESCRIBED PASSAGE CANNOT OCCUR.

MONEY INVOLVED (DIRECT COSTS, EXPENDITURES, SAVINGS) \$ 55,226.00
to be paid for out of the existing bond issue for the expansion of
the Water Filtration Plant.
ASSIGNED TO COMMITTEE (PRESIDENT) _____